

CLAIMS

1. An apparatus for sucking liquid, comprising:
 - a plurality of liquid suction portions;
 - a pump mechanism capable of sucking a fluid; and
 - a switching valve connected to each liquid suction portion and to the pump mechanism, wherein the switching valve causes the pump mechanism to be placed in communication with a specific number of the liquid suction portions, and switches the communication at certain time intervals during liquid suction.
2. The apparatus for sucking liquid according to claim 1, comprising:
 - a plurality of chambers disposed on channels that connect the plurality of liquid suction portions and the switching valve.
3. The apparatus for sucking liquid according to claim 2, comprising:
 - a channel opening/closing valve for controlling the communication of a channel that connects the liquid suction portion and the chamber.
4. The apparatus for sucking liquid according to claim 1, wherein a liquid including nucleic acid is sucked, the apparatus comprising:
 - a plurality of nucleic acid capturing containers communicating individually with the plurality of liquid suction portions, and having a carrier capable of capturing nucleic acid.
5. The apparatus for sucking liquid according to claim 1, wherein
 - a liquid to be sucked comprises a sample including whole blood, urine, and/or blood serum.
6. The apparatus for sucking liquid according to claim 1, wherein

the switching valve comprises a multiple valve.

7. The apparatus for sucking liquid according to claim 2, wherein

the capacity of the chamber is not less than ten times the volume of a liquid to be sucked.

8. The apparatus for sucking liquid according to claim 2, wherein

a channel that connects the liquid suction portion and the chamber is thinner than a channel that connects the chamber and the switching valve.

9. An apparatus for sucking liquid, comprising:

a plurality of liquid suction portions;

a plurality of chambers individually connecting to each liquid suction portion;

a pump mechanism capable of controlling the pressure of the inside of each chamber;

a first channel opening/closing valve for controlling the communication of channels connecting each liquid suction portion and each chamber; and

a second channel opening/closing valve for controlling the communication of channels connecting each chamber and the pump mechanism.

10. The apparatus for sucking liquid according to claim 9, wherein a liquid including nucleic acid is sucked, the apparatus comprising:

a plurality of nucleic acid capturing containers communicating individually with the plurality of liquid suction portions, and having a carrier capable of capturing nucleic acid.

11. The apparatus for sucking liquid according to claim 9, wherein
the capacity of the chamber is not less than ten times the volume of a liquid to be sucked.
12. An apparatus for sucking liquid, comprising:
a plurality of liquid suction portions;
a plurality of chambers connecting individually to each liquid suction portion;
a pump mechanism capable of controlling the pressure of the inside of each chamber;
a channel opening/closing valve for controlling the opening/closing of channels connecting each liquid suction portion and each chamber; and
a plurality of check valves for passing fluids only in the direction from the chambers to the pump mechanism, the plurality of check valves being disposed on channels that connect each chamber and the pump mechanism.
13. The apparatus for sucking liquid according to claim 12, wherein a liquid including nucleic acid is sucked, the apparatus comprising:
a plurality of nucleic acid capturing containers communicating individually with the plurality of liquid suction portions, and having a carrier capable of capturing nucleic acid.
14. The apparatus for sucking liquid according to claim 12, wherein
the capacity of the chamber is not less than ten times the volume of a liquid to be sucked.
15. A liquid suction method for sucking a liquid from a plurality of liquid suction portions using a pump mechanism capable of sucking a liquid,

wherein

while the pump mechanism is being driven, the liquid suction portions placed in communication with the pump mechanism are switched at certain time intervals, whereby a liquid is sucked from each liquid suction portion substantially in a simultaneous manner.

16. The liquid suction method according to claim 15, wherein

a chamber is disposed on channels that individually connect each liquid suction portion and the pump mechanism, the chamber having a capacity not less than ten times the volume of a liquid to be sucked.

17. The liquid suction method according to claim 15, wherein

a channel that connects the liquid suction portion and the chamber is thinner than a channel that connects the chamber and the pump mechanism.

18. The liquid suction method according to claim 15, wherein

a liquid to be sucked comprises a sample including whole blood, urine, and/or blood serum.

19. The liquid suction method according to claim 18, wherein

nucleic acid capturing containers provided with a solid phase capable of capturing nucleic acid are caused to communicate with the plurality of liquid suction portions, and nucleic acid is captured on the solid phase by sucking a liquid from each liquid suction portion.

20. A liquid suction method for sucking a liquid, using a plurality of chambers to individually communicate with a plurality of liquid suction portions, and a pump mechanism capable of controlling the pressure of each chamber, wherein a liquid is sucked from each liquid suction portion, the

method comprising the steps of:

blocking each liquid suction portion and each chamber, switching the communication between each chamber and the pump mechanism, and then driving the pump mechanism thereby depressurizing each chamber; and

causing each depressurized chamber to come into communication with each liquid suction portion and sucking a liquid.

21. The liquid suction method according to claim 20, comprising the step of:

in a state such that each liquid suction portion and each chamber are in communication, switching the communication between each chamber and the pump mechanism at certain time intervals, driving the pump mechanism, thereby sucking a liquid from each liquid suction portion.

22. The liquid suction method according to claim 20, wherein

the capacity of the chamber is not less than ten times the volume of a liquid to be sucked.

23. The liquid suction method according to claim 20, wherein

a liquid to be sucked comprises a sample including whole blood, urine, and/or blood serum.

24. The liquid suction method according to claim 20, wherein

nucleic acid capturing containers provided with a solid phase capable of capturing nucleic acid are caused to communicate with the plurality of liquid suction portions, and nucleic acid is captured on the solid phase by sucking a liquid from each liquid suction portion.

25. A liquid suction method for sucking a liquid, using a plurality of chambers to individually communicate with a plurality of liquid suction

portions, and a pump mechanism capable of controlling the pressure of each chamber, wherein a liquid is sucked from each liquid suction portion, the method comprising the steps of:

blocking each liquid suction portion and each chamber, and driving the pump mechanism, thereby depressurizing each chamber; and

blocking each chamber and the pump mechanism, and causing each chamber to come into communication with each liquid suction portion, thereby sucking a liquid from each liquid suction portion.

26. The liquid suction method according to claim 23, comprising the step of:

blocking each liquid suction portion and each chamber, causing each chamber to come into communication with the pump mechanism, and driving the pump, thereby sucking a liquid from each chamber.

27. The liquid suction method according to claim 23, wherein

the capacity of the chamber is not less than ten times the volume of a liquid to be sucked.

28. The liquid suction method according to claim 23, wherein

a liquid to be sucked comprises a sample including whole blood, urine, and/or blood serum.

29. The liquid suction method according to claim 26, wherein

nucleic acid capturing containers provided with a solid phase capable of capturing nucleic acid are caused to communicate with the plurality of liquid suction portions, and nucleic acid is captured on the solid phase by sucking a liquid from each liquid suction portion.